

Enterprise Data Standards Framework

Version 1.0 – Final Draft

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Washington State
Enterprise Architecture
Information Architecture

Framework, Guidelines, and Templates

1	Table of Contents	
2	1. Purpose	3
3	2. Description	3
4	3. Enterprise Data Standards Framework	4
5	3.1. Identify and Confirm Business Driver	4
6	3.2. Involve Stakeholders	5
7	3.3. Set Data Standard	5
8	3.4. Develop Implementation Plans	7
9	3.5. Monitor Implementation	8
10	4. Glossary	8
11	5. References	9
12	6. Document Context	9
13	7. Document History	9
14	8. Appendix A – Roles & Responsibilities Matrix	10
15	9. Appendix B - Process Flow Chart	11
16	10. Appendix C – Implementation Plan Template	12
17		
18		

1. Purpose

The Data Standards Framework is designed to help agencies develop state enterprise data standards. It includes steps and templates to help document value proposition, obtain sponsorship, engage stakeholders, and drive new data standards to completion. Stakeholder participation is key.

The Framework is designed to help agencies succeed. It provides details, yet is designed for flexibility and agility. Tasks and steps may be combined where possible for efficiency.

This document, related templates, processes and websites are expected to evolve as more enterprise data standards are developed and agencies continue to collaborate and coordinate.

2. Description

This document defines the Framework, with guidelines and processes, to help state enterprise lines of business and agencies establish **Tier One** enterprise data standards. Glossary entries and References noted in **BOLD**.

The Framework provides a step-by-step process:

- Step 1 - Identify and confirm business drivers;
- Step 2 - Involve stakeholders;
- Step 3 - Set data standards;
- Step 4 - Develop implementation plans; and
- Step 5 - Monitor implementation

Appendices

- Appendix A - Roles and Responsibilities Matrix - who should participate.
- Appendix B - Process Flow Chart - who does what, and when and how the steps fit together.
- Appendix C - Implementation Plan Template - expected budgets/costs, schedules, roles, migration strategies, and more.

Related Materials

<http://dis.wa.gov/initiatives/enterprisearch/data.aspx>

- Business Case Template
- Data Standards with Data Dictionary Template
- State Enterprise Data Standards Website

Key Term

- **Data Standard** – Documented agreement on the format and definition of common data. Established consistent specifications for data elements, such as the name of the data standard, definition, field length, executive data steward, and other components.

State enterprise data standards may be specific to a line of business such as Finance, Geospatial or span business functional areas (e.g. name, address.)

3. Enterprise Data Standards Framework

3.1. Identify and Confirm Business Driver

A business case helps identify and communicate the value proposition for establishing enterprise data standards. Not all data or information has the same associated value or risks.

Data standards proposals can be initiated various ways such as: Governor or legislative direction, enterprise goals and strategies, Information Services Board, committees, groups, agencies, businesses, or individuals.

Once initiated a Primary Steward is needed to drive to business case and proposed data standards to completion using the Data Standards Framework process and templates.

3.1.1. Identify Business Need and Begin to Populate Business Case (*Initiator/Primary Steward*)

- Check for existing state data standards on the state's data website (aka registry) and Access Washington search tool before starting business case.
- Check federal, state; and industry data standards for efficiency and interoperability.
- Identify and contact potential primary steward. Some data may have clear owners, while other may require executive sponsors or other authorizing to help select
- with business need/opportunity for data standards.
- Download business case template from: <http://dis.wa.gov/initiatives/enterprisearch/data.aspx>
- Start to draft Business Case and communicate with potential executive sponsors, data stewards, and stakeholders.
- Note and begin to address any key issues or decisions.

3.1.2. Review Business Case (*State EA Program*)

- Review draft business case with EA Program to help verify proposal is a likely candidate for Tier One enterprise data standards.
- EA Program should help Primary Steward identify necessary steps, potential stakeholders, and help enable business case to move forward.

3.1.3. Possible Tier One Standard? (*Primary Steward/State EA Program*)

- Check state Data Standards website for existing or related standards, subject area, and Primary Steward/business owner.
- Decide if proposed standards qualify as Tier One using ISB definitions of tiers and EA Committee Principles; identify if business case includes enough information to proceed.
- If no, contact Initiator with findings or request more information to make a decision. If yes, send initial draft business case to Primary Steward.

3.1.4. Identify Executive Sponsors. (*Primary Steward*)

- If Executive Sponsors have not yet been identified, Primary Steward should identify appropriate sponsors to help review business case.
- Inform Executive Sponsors when business case requires their review.

3.1.5. Review Business Case w/Dependencies and Success Factors (Executive Sponsors)

- Review business case to determine whether proposal is sound and confirm sufficient executive support to continue.
- Discuss possible system dependencies and associated risks. Determine if the data standards alone will solve the business problem or whether there are other steps required such as the development of an information system.

3.1.6. Approve Business Case to Move Forward (Executive Sponsors)

- If no, let Initiator, Primary Steward, and state EA Program know why not recommended to go forward.
- If yes, establish a Steering Committee if needed or assign similar functional roles. Assign Primary Steward to chair or facilitate Data Stewards.

3.1.7. Assign the Data Stewards (Steering Committee)

- Identify business and technical subject matter experts who should be Data Stewards. Request their participation in this data standards project before handing off the business case.

3.1.8. Ensure Enterprise Readiness (EA Committee)

- Review Business Case with Primary Steward to ensure enterprise readiness, strategic business and IT plan alignment, linkages to common enterprise business activities, industry standards or best practice awareness and consideration, and expected stakeholder participation.

3.2. Involve Stakeholders

Stakeholder identification, participation, and endorsement are key to successful establishment and implementation of data standards.

3.2.1. Identify & Create Complete Stakeholder Map (Data Stewards)

- Identify business agencies with an interest in the outcome of the new data standards.
- Consult with each impacted agency to ensure involvement of all appropriate parties in both business and IT to guarantee integrity and success of the workgroup.
- Identify potential system of record and other key impacted systems. Include those system stakeholders in the list.
- Update stakeholder list in business case.

3.2.2. Communicate Business Case to Stakeholders (Data Stewards)

- Send business case to stakeholders to inform them work has begun to set enterprise data standards.
- Request response on strength of identified business needs and on stakeholder list completeness.
- Assist in coordinating meetings if needed to supplement email correspondence.

3.2.3. Review Business Case (Stakeholders)

- Thoroughly review business case and give feedback to Data Stewards.
- Add comments to business case to strengthen; add any other potential stakeholders.

3.3. Set Data Standard

3.3.1. Develop, Refine & Recommend Data Standards & Target Implementation Date (Data Stewards)

- Check for related state data standards on the state's **data website (aka registry)** and Access Washington search tool before developing data standards.
 - Check federal, state; and industry data standards for efficiency and interoperability.
 - Download the Data Standards with Data Dictionary template from:
<http://dis.wa.gov/initiatives/enterprisearch/data.aspx>
 - Primary Steward should convene the Data Stewards.
 - Data Stewards should research current federal, state and agency practices, related legislation, applicable professional standards, and technology directions that may impact data standards under consideration.
 - Data Stewards should develop a discussion draft of proposed data standards based on research results.
 - Business Case should accompany proposed draft so readers have a sense of why the data standards are being created or changed.
 - Include high-level usage scenario with data exchanges. Include diagram if possible.
 - Include a recommended implementation strategy , such as when building new information systems, or converting existing systems, or utilization of cross-walks.
 - As a team, work to complete the business case.
 - Send completed business case, any discussion drafts, and draft data standards to stakeholders.
- 3.3.2. Identify Potential Impact to Implement (Stakeholders)**
- Review business case along with impacts to implement as identified by Data Stewards; add impacts not considered. Note: this is not the final implementation plan, but should be detailed enough so Steering Committee and Executive Sponsors will know if there are serious concerns on the time and cost to implement proposed data standards.
 - Send information back to the Data Stewards.
- 3.3.3. Complete Data Standards Template (Data Stewards)**
- Review feedback and high level impact analysis received from stakeholders.
 - Fill out Data Standards template and update business case with information collected from stakeholders.
 - Send completed documents to stakeholders for review.
- 3.3.4. Review Data Standard (Stakeholders)**
- Review final draft documents and send final feedback to Data Stewards.
- 3.3.5. Review Potential Data Standards, Impact Analysis and Target Implementation Date (Steering Committee)**
- Review documents prepared by Data Stewards to determine if complete and proposal is still a valid enterprise endeavor.
- 3.3.6. Proceed? (Steering Committee)**
- Decide whether to move forward with proposed data standards.

- If no, send back to Data Stewards for more work or to cancel proposal.

- If yes, Primary Steward presents to Executive Sponsors for review.

3.3.7. Review Business Case and Proposed Data Standards (Executive Sponsors)

- Review documents to determine if proposal meets original goals and is a valid enterprise endeavor. Consideration should also be given to concerns surrounding the impacts to implementation.

3.3.8. Approve Data Standards to Move Forward? (Executive Sponsors)

- If no, send documents back to Steering Committee and Data Stewards for more work or to cancel proposal.
- If yes, Primary Steward presents proposal to the state EA Committee to ensure enterprise readiness for elements for success.

3.3.9. Ensure Enterprise Readiness (EA Committee)

- Ensure proposed data standards align with state EA Principles, ISB EA standards, and utilize Framework process to ensure success.

3.3.10. Update Data Standards Website/Registry (State EA Program)

- Enter approved information into the state data standards website/registry.

3.3.11. Communicate to All Agencies (Primary Steward/State EA Program)

- Send communications to all state agencies via multiple channels to increase awareness of newly adopted data standards. Include business and IT leaders in communications.

3.3.12. Update ISB on process (EA Committee)

- Keep ISB informed as the process moves forward.

3.4. Develop Implementation Plans

3.4.1. Prepare High-Level Implementation Plans (Stakeholders)

- Review Implementation Plan template and begin Implementation Plan (see Appendix D.)
- After Executive Sponsors approve the data standards, agencies should document how and when they will implement them.
 - Agencies impacted by the data standards should develop a high level implementation plan addressing the planned date of compliance and implementation risks.
 - Agencies currently not impacted should document it doesn't apply to them at this time.
- State EA Program will provide data standards assistance to agency stakeholders.

3.4.2. Review Implementation Plans (Data Stewards)

- Review agency implementation plans for completeness and possible timeline risks. Report should include unresponsive agencies.

3.4.3. Review Implementation Plans (Steering Committee)

- Review implementation plans for completeness and possible timeline risks.

3.4.4. Review Implementation Plans (Executive Sponsors)

- Review implementation plans for completeness and possible timeline risks.

3.4.5. Approve Agency Implementation Plans *(Executive Sponsors)*

Implementation plan reviews should include an assessment of any statewide impacts (such as funding requests for implementation, changes needed to enterprise systems, etc.)

- If no, send plan back to stakeholders for more work.
- If yes, pass implementation plans on to state EAC

3.4.6. Ensure Enterprise Readiness and Success *(EA Committee)*

- Review to ensure enterprise readiness, strategic business and IT plan alignment, linkages to common enterprise business activities, and other opportunities for success.

3.4.7. Communicate to Impacted Agencies *(State EA Program/Primary Steward)*

- Communicate ISB and/or Executive Sponsor actions to all stakeholders and agencies including endorsement of implementation plans or amendment of implementation strategy.

3.5. Monitor Implementation

3.5.1. Summarize and Communicate Timelines *(Primary Steward)*

- Publish summarized agency implementation timelines
- Notify agencies a request for implementation status will be requested of them [insert timeframe.]

3.5.2. Compile Reports and Communicate Updates *(Primary Steward)*

- Collect and compile implementation reports on an agreed upon timeframe and communicate to all interested parties.

3.5.3. Report on Implementation Progress and Estimated Completion Date *(Stakeholders)*

- Periodically report on the data standards implementation status to ISB and Executive Sponsors.
- Compile reports on agreed upon timeframe and submit to state EA Program.

4. Glossary

DATA GOVERNANCE

The exercise of authority and control (planning, monitoring and enforcement) over the management of data assets. (DAMA) An operating discipline for managing data and information as a key enterprise asset. (NASCIO)

DATA STANDARD

Documented agreement on the format and definition of common data. Established consistent specifications for data elements, such as the name of the data standard, definition, field length, executive data steward, and other components.

EA PROGRAM

An effort chartered by the Information Services Board and staffed by Management and Oversight of Strategic Technology Division of Department of Information Services whose mission is to lead and facilitate the development of enterprise architecture for Washington State government.

STATE SUBJECT AREA LIST

State subject areas with Business Owner, responsible agency or group of agencies, and related data elements/attributes. See <http://dis.wa.gov/initiatives/enterprisearch/data.aspx>

TIER ONE

Business processes, data, or technologies that are common for the state.

Enterprise Architecture Tier Definitions and Diagram
<http://isb.wa.gov/committees/enterprise/concepts/>

5. References

DAMA

Data Management Association, Data Management Body of Knowledge, DAMA-DMBOK Guide, 2009.

NASCIO

Data Governance, National Association of Chief Information Officers, 2008-2009.

6. Document Context

This document is within the scope of the state's Enterprise Data Standards Initiative. It is defined as a deliverable within the Initiative Charter adopted on January 8, 2009 by the Information Services Board (ISB). Objectives include:

- Develop a framework and guidelines for a repeatable governance model by which state agencies will work together to create and maintain enterprise data standards.

The charter is available at: http://dis.wa.gov/initiatives/enterprisearch/data_standards_initiative.aspx

7. Document History

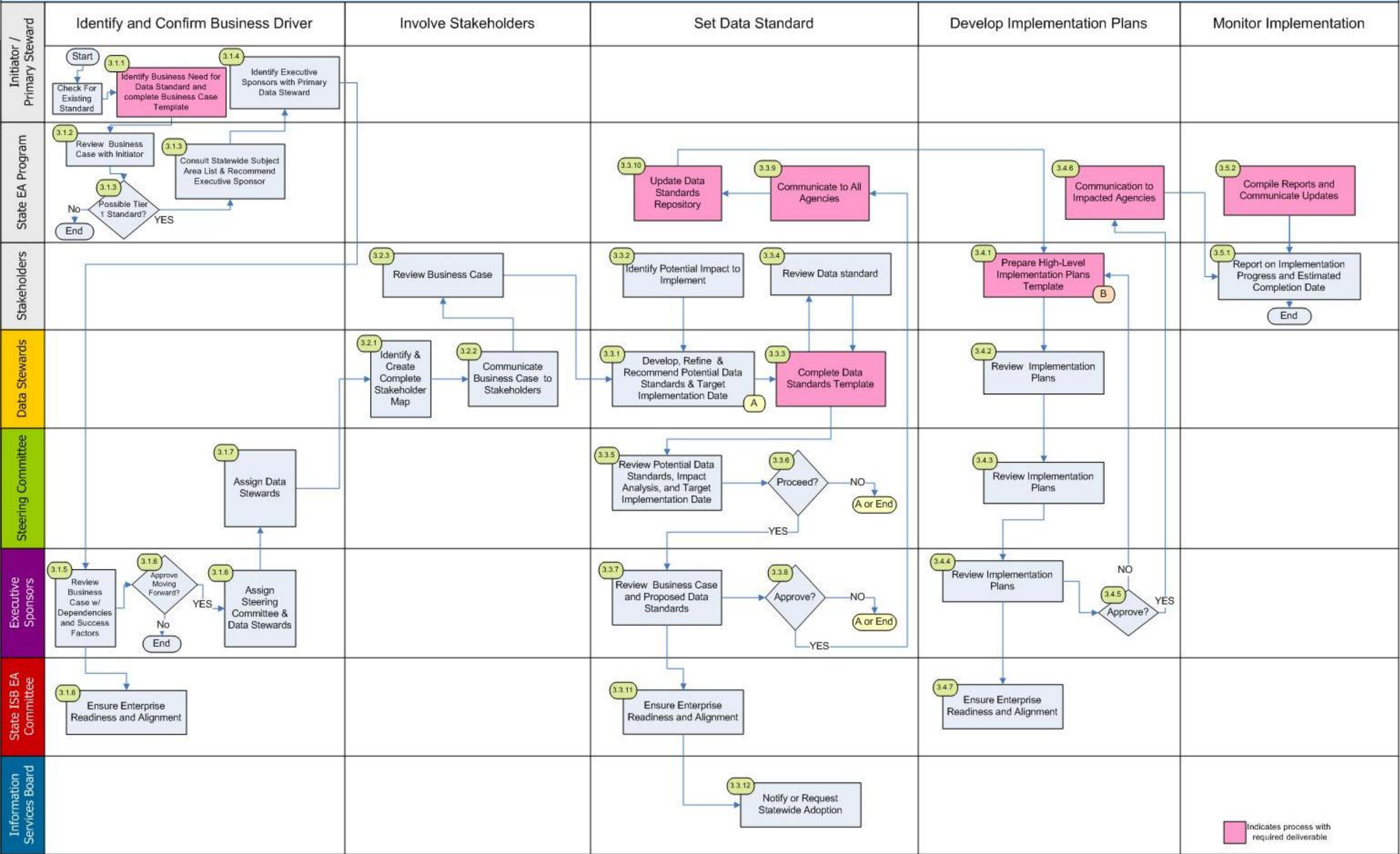
Date	Version	Editor	Change
Apr 2010	1.0	Documenter Team	Initial Draft, Documenter Team edits, synchronization, and plain talk

8. Appendix A – Roles & Responsibilities Matrix

Role	Definition/Responsibilities	Example – Supply Chain Management, NIGP Commodity Codes Data Standards
Initiator	Data standards can be initiated various ways such as: Governor, legislative, or Information Services Board direction, enterprise goals and strategies, committees, groups, agencies, businesses, or individuals. Once initiated, a Primary Steward is needed to drive to completion.	<ul style="list-style-type: none">State’s Government Reform Initiative, Procurement Reform Initiative and StrategyState Financial Roadmap InitiativeDepartment of General Administration
Primary Steward	Primary sponsor and/or business owner responsible for business case and proposed data standards. Agencies may have clear ownership or designated responsibility. Participates on Steering Committee, and chairs or facilitates Data Stewards.	<ul style="list-style-type: none">Department of General Administration
Executive Sponsors	Primary business area executives for approving/endorsing business case and proposed data standards. Lead data governance team that ensures enterprise business value, alignment, and performance. Includes senior managers and one or more Executive Sponsor may exist. Typically organizes projects around major subject areas and functions of state government including lines of business. Assigns tasks to Steering Committee or similar role.	Executive business sponsors represented agencies with key state Supply Chain Management responsibilities <ul style="list-style-type: none">General AdministrationOffice of Financial ManagementDepartment of PersonnelDepartment of Printing; andDepartment of Information Services *State Financial Roadmap Executive Steering Committee agencies noted above
Steering Committee	Senior business and technical leaders. responsible for support and oversight of a particular data management initiative launched by Executive Sponsors and Primary Steward. This role may be formal, ad hoc, or sometimes combined with executive sponsors depending on variables such as proposal scope, related investments, and enterprise governance models.	<ul style="list-style-type: none">Procurement Reform Decision Team
Data Stewards	Agencies and temporary or permanent groups. Business and technical subject matter experts that help develop, refine and recommend potential data standards. Ensure data stewardship activities are consistent with standards. Potential early adopters.	<ul style="list-style-type: none">Procurement Reform WorkgroupFinancial Management Advisory Council (FMAC)Agencies with key Supply Chain Management systems, including early adopters
Stakeholders	Agencies, individuals, groups, and any public and private sector organizations affected by the creation and implementation of proposed data standards.	<ul style="list-style-type: none">Central Service Customer Advisory GroupNational Institute of Government Purchasing (NIGP)State agencies and entitiesVendors
State Enterprise Architecture Program	Leads and enables enterprise architecture development for Washington state government and ISB EA Committee initiatives. Staffed by Management and Oversight of Strategic Technology Division of Department of Information Services.	<ul style="list-style-type: none">State EA Program worked with Department of General Administration
ISB Enterprise Architecture Committee	Enables collaboration among state’s business programs and information systems. Composed of agency Chief Information Officers and other representatives.	<ul style="list-style-type: none">EAC reviewed NIGP Commodity Codes for state enterprise readiness
Information Services Board	ISB is responsible for information technology (IT) services planning, acquisitions, policies and standards. Reviews IT projects as required by Washington’s investment and portfolio management policies. Includes leaders from legislative, judicial and executive branches of government, and from private sector.	<ul style="list-style-type: none">ISB and Department of General Administration (GA) adopted/approved NIGP Commodity Codes as state enterprise data standards

254

9. Appendix B - Process Flow Chart



255

10. Appendix C – Implementation Plan Template

Introduction & Background

Provide a high-level description of the product or services to be implemented.

Implementation Approach

Describe the overall approach to be used in product implementation. Include any assumptions that impact this approach.

Budget

- Identify the budget associated with implementation activities (in the context of the original financial plan).

Schedule

- Describe the implementation schedule and factors influencing that schedule. Include reference to business cycles or other timing considerations (in the context of the original project schedule).

Roles & Responsibilities

- Identify the roles and responsibilities associated with implementation as well as the skill set needed to perform those functions. Key roles to identify include the primary business contact, implementation team lead(s), key technical staff, customer or help desk support, documentation and other support staff.

Training

- Describe user and support training activities supporting implementation (in the context of the original training plan).

Customer Management

- Describe how stakeholder/customers will be involved in or informed about implementation activities. Describe key stakeholders and methods for communication where known.

Migration or cutover strategy

- Describe how the product or service will be migrated into the business environment. This section will include any conversion details, sequencing, establishment of production environment, installation of equipment, and the like.

Documentation

- Describe product or system documentation and how information is stored and accessed. Include descriptions of material that will be produced during implementation and transition activities. Include details on where documentation is stored and how it is accessed.

Turnover

- Describe product/service turnover activities and any assumptions related to turnover. Describe or reference the state or status of the product/service at the time of turnover. Identify any turnover activities that must be performed by a vendor in transitioning product/service to state staff.

Acceptance

- Define the point at which business and project staff agree that implementation will be complete and transition to maintenance can occur.

Implementation and Transition Acceptance

- Insert signature block indicating acceptance of new system.